Medical home care services for the housebound elderly

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In our health jurisdiction the proportion of elderly people is more than double the national average, and there is a severe shortage of both home care services and long-term care beds. To help the many elderly housebound people without primary medical care we initiated a medical services home care program. The goals were patient identification, clinical assessment, medical and social stabilization, matching of the housebound patient with a nearby family physician willing and able to provide home care and provision of a backup service to the physician for consultation and help in arranging admission to hospital if necessary. In the program's first 2 years 105 patients were enrolled; the average age was 78.9 years. More than 50% were widowed, single, separated or divorced, over 25% lived alone, and more than 40% had no children living in the city. In almost one-third of the cases there had never been a primary care physician, and in another third the physician refused to do home visits. Before becoming housebound 15% had been seeing only specialists. Each patient had an average of 3.2 active medical problems and was functionally quite dependent. Thirty-five of the patients were surveyed after 1 year: 24 (69%) were still at home, and only 1 (3%) was in a long-term care institution; 83% were satisfied with the care provided, and 79% felt secure that their health needs were being met. One-third of the patients or their families said that it was not easy to reach the physician when necessary. We recommend that programs similar to ours be set up in health jurisdictions with a high proportion of elderly people. To recruit and retain cooperative physicians hospital geriatric services must be willing to provide educational, consultative and administrative support.

Dans notre domaine de compétence médicale, la proportion des personnes âgées est plus que deux fois supérieure à la moyenne nationale, et la pénurie de services à domicile et de lits de soins chroniques est grave. Afin d'aider les très nombreuses personnes âgées confinées chez elles sans soins médicaux primaires, nous avons lancé un programme de services médicaux à domicile. Le programme visait à identifier des sujets, à effectuer des évaluations cliniques, à assurer une stabilisation médicale et sociale, à confier le sujet confiné chez lui aux soins d'un médecin de famille des environs disposé et prêt à lui fournir des soins à domicile, et à assurer au médecin un service de relève pour consultation et pour aider à organiser une hospitalisation au besoin. Au cours des 2 premières années du programme, on y a inscrit 105 sujets, âgés en moyenne de 78,9 ans. Plus de 50 % étaient veufs, célibataires, séparés ou divorcés, plus de 25 % vivaient seuls, et plus de 40 % n'avaient pas d'enfant vivant dans la même ville. Presque le tiers des cas

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n'avaient jamais reçu la visite d'un médecin de soins primaires, et dans un autre tiers des cas, le médecin refusait d'effectuer des visites à domicile. Avant d'être confinés à la maison, 15 % des sujets ne consultaient que des spécialistes. Chaque sujet avait en moyenne 3,2 problèmes médicaux actifs et était très dépendant sur le plan fonctionnel. On a interviewé 35 des sujets après 1 an : 24 (69 %) étaient encore chez eux, et 1 seulement (3 %) était institutionnalisé dans un établissement de soins chroniques; 83 % étaient satisfaits des soins reçus, et 79 % croyaient qu'on satisfaisait à leurs besoins médicaux. Le tiers des sujets ou des membres de leur famille ont affirmé qu'il n'était pas facile de communiquer avec le médecin au besoin. Nous recommandons d'établir des programmes semblables aux nôtres dans les niveaux de compétence médicale où les personnes âgées sont très nombreuses. Pour recruter et garder des médecins coopératifs, les services gériatriques des hôpitaux doivent être disposés à leur assurer un appui éducationnel, consultatif et administratif.

The proportion of elderly people continues to increase throughout the Western world.[1] In 1981 those over 65 years of age constituted 9.7% of Canada's population, an increase of nearly 20% since 1950.[2] Not only will this proportion continue to rise, but also that of the very elderly (those over 75) will increase even more quickly.[3] As these people require a disproportionately large share of medical and social services one can expect increasing pressure on the health care system.

Over the next few decades Canada will require a 44% increase in short-term and a 63% increase in long-term care beds[4] as well as more home care and community services.[4,5] The present fragmentation of community and institutional services and of services provided by short-term and long-term care institutions will have to be redressed if the present health care system is to run efficiently.

Our work in the Division of Geriatrics, Sir Mortimer B. Davis–Jewish General Hospital (a 620-bed tertiary care teaching hospital in Montreal), revealed that many homebound elderly people were having a serious problem gaining access to physician services. The problem has been reported in the United States[6] but not to our knowledge in Canada. We came across the situation with patients about to be discharged from both the short-term care geriatric and general medical wards, those seen by the geriatric consultation service on the general hospital wards and in the emergency department, and those seen in our geriatric assessment and psychogeriatric clinics.

In addition, many elderly people referred to the home care program (comprising homemaker, nursing and some medical services) of the local government community health centre (centre local de services communautaires [CLSC])[7] were found to be without the services of a primary care physician. Since most of these patients suffered from several chronic illnesses the lack of medical input prevented the home care team from properly following their clients. Partly because of this lack of primary care recently discharged elderly patients were often readmitted to hospital.

To answer the needs of this patient population the Medical Services Home Care Program (MSHCP) was initiated, to be shared by the Sir Mortimer B. Davis–Jewish General Hospital and a neighbouring CLSC. The program's purpose was to identify and evaluate such patients and find a family physician close by who was willing to care for them at home. In addition, the program would provide backup services to the physician, including consultation and the arrangement of short-term care in hospital should the patient's condition preclude continued home care. A final goal was to introduce family medicine residents and medical students to the technique of home visiting.

The program tried, therefore, to promote coordination and continuity of care between three traditionally rather isolated elements of the health care system: hospital-based geriatric services, family physicians in private practice and other resources of the provincial social affairs network, particularly CLSC home care programs.

We describe the development of the program, analyse the first 105 cases and report the status of one-third of the patients after 1 year. Also, we discuss the general medical, organizational and service implications of our experience.

Program development

The Sir Mortimer B. Davis–Jewish General Hospital is in the Sainte-Justine community health district, which has a population of 157 000 people, 20% of whom are over 65 years of age.[8] Although this proportion is double the national average it does not fully describe the challenges faced by the local health services, since it is estimated that nearly 25% of the Montreal Jewish community (most of whose elderly live in our district) are over 65.

Our hospital admits people from any language or ethnic group. However, the Jewish community (especially the elderly portion) naturally sees the hospital as its own institution, so that the hospital and surrounding community services are subjected to a heavily aged case mix. For example, during

1988–89 those aged over 65 accounted for 32.8% of hospital separations and 57.1% of bed-days, as compared with the national averages during 1985–86 of 26.5% and 51.9% respectively.[9] As well, the average length of stay in our hospital during 1988–89 was 9.3 days, as compared with the national average of 8.7.[10] This figure applied only to those patients requiring short-term care. Inclusion of the long-term care patients awaiting nursing home placement, who occupy 25% of our beds, would have increased the average length of stay. As a result of this demographic pressure the emergency department would often overflow with patients awaiting admission, sometimes for up to 1 week.

Furthermore, the number of long-term beds available to the surrounding territory, and the Montreal Jewish community per se, remains disproportionately low. Despite recent government plans to increase these numbers there are only 3.5 long-term beds per 100 elderly patients, as compared with the Montreal average of 6.5 beds.[11]

Program description

Referrals were accepted from anywhere in our local health care system (e.g., the CLSC home care program, social workers, the emergency department and any hospital ward). In Quebec a patient does not require a medical referral to be accepted for home care. Before the program began if patients in the CLSC program did not have a physician willing to look after them at home the home care nurses would have to try, frequently in vain, to find cooperative physicians who would. To be eligible for our program patients had to be housebound and have no primary care physician who would provide care at home.

Referrals were directed to the MSHCP clinical coordinator, a full-time physician in the hospital's Division of Geriatrics. He visited the patient at home, performed a full medical assessment and arranged for appropriate laboratory tests. In addition, the coordinator collated all relevant parts of the hospital record, information invaluable to the family physician who later handled the case. This process took anywhere from days to weeks but was made easier by the coordinator's full-time, salaried hospital appointment. Only after all these data were assembled and the patient's clinical situation stabilized was the case referred to a community physician.

Recruiting physicians willing to accept such patients took some effort. We used various methods, from taking advantage of the conditions for hospital departmental membership to linking up with a project arranged between the Sainte-Justine health district and the Fédération des médecins omnipraticiens du Québec (FMOQ).[12] In some cases we assigned patients under staff supervision to family medicine residents at the Herzl Family Practice Centre.

Each patient was matched to a physician according to three criteria. The first was patient location relative to the physician's office or home, a requirement critical to the successful recruitment and retention of physicians. Second, the personality of the physician was considered. Many home care cases were difficult to treat from a medical or a psychosocial point of view or both. Various family physicians had different perceived strengths in this regard, and so a crude match was attempted. Finally, since the patients spoke so many different languages (Yiddish 38%, English 32%, French 13% and other 11%) we tried to assign physicians who could comfortably function in the appropriate language.

An important component of the program was the careful clinical backup provided to the community physicians. Our Division of Geriatrics provided consultation by telephone whenever required (about once a week) and a home visit or examination in the emergency department (about once a month). If necessary, prompt admission was arranged, which had not been easy for community physicians to achieve before the program began. The geriatricians saw to it that no family physician was left "holding the bag" when admission was urgently required.

Results

During the first 2 years 105 people entered the program. Their demographic characteristics are shown in Table 1. The average age was high (78.9 years), and many (42%) had either no children living in Montreal or only one (31%). Thus, in a crisis many patients could not depend on backup from their immediate family.

In Canada, particularly Quebec, there is a favourable physician:patient ratio.[13] Even though Montreal has an even higher ratio than the rest of the province we found many housebound patients without access to primary medical care. Table 2 shows the patients' reasons for this. Nearly half had a physician who, for whatever reason, either could not or would not do housecalls. When these patients were referred to us the clinical coordinator telephoned the physician to explain that his or her patient had been directed to our program. In one-third of the cases this was enough to ensure that the physician continued to care for the patient at home. If the appeal was rejected a physician from our list was assigned.

Why might family physicians refuse to follow their patients who require care at home? Medical care for homebound patients is difficult to organize

and is a departure from the usual office practice routine. Understandably some physicians feel uncomfortable without proper backup services or access to hospital beds. In addition, some office-based physicians do not always know a great deal about community resources. They are not clear on how to organize such requirements as laboratory tests, nursing care and family education. Moreover, government home care programs and physicians in private practice have not always understood each other well. Finally, reimbursement issues are important: family physicians have good reason to believe that they are underpaid for home care.

Almost one-third of the patients were left without home medical help because they had never gone to a physician before becoming housebound. One group of patients (15%) only saw specialists, none of whom agreed to follow their patients at home even after a call from the clinical coordinator.

Not surprisingly, the patients who entered the program were, on the whole, sick and disabled. The average number of active medical problems per patient was 3.2 (standard deviation 1.8), more than one-third suffering from four or more problems. The mental status score[14] of the patients tested (91%) revealed moderate and severe cognitive dysfunction in 12% and 24% respectively.

Most of the patients were taking many medications, 16% taking more than seven and 58% four or more (Table 3). These patients constituted a high-risk group, since the chance of adverse reactions and interactions increases with the number of drugs ingested.[15]

Using Katz and colleagues' activities of daily living index[16] we found that the patients were severely disabled functionally: most (85%) could not bathe themselves, and many had difficulty with transferring (62%), dressing (54%) and toileting (46%). Twenty percent were incontinent; this was important since incontinence is one of the main reasons offered by families for not being able to care for their sick relatives.[17]

The risk factors for admission to a long-term care institution[18] exhibited by the patients are shown in Table 4.

Follow-up at 1 year

After 1 year we surveyed the 35 patients who were enrolled in the project by the FMOQ and the Sainte-Justine health district.[11] The mean age (78 years), sex distribution (63% women) and clinical profile were similar to those in the larger group. Most (88%) of the subgroup or their immediate

Table 1: Demographic characteristics of the first 105 patients in the Medical Services Home Care Program (MSHCP)

Characteristic	Value	
Mean age (and standard deviation), yr	78.9	(9.8)
Sex, no. (and %)		
Female	64	(61)
Male	41	(39)
Marital status, no. (and %)		
Married	46	(44)
Widowed	36	(34)
Single	17	(16)
Separated or divorced	4	(4)
Unknown	2	(2)
Maternal language, no. (and %)		
Yiddish	40	(38)
English	34	(32)
French	14	(13)
Other	11	(10)
Unknown	6	(6)
Living arrangement, no. (and %)		
With spouse	39	(37)
Alone	28	(27)
With children	13	(12)
With spouse and children	3	(3)
Other	22	(21)

Table 2: Patients' reasons for lack of primary medical care

Reason	No. (and %) of patients
Never had primary care physician	34 (32)
Physician refused to do housecalls	33 (31)
Used specialists only	16 (15)
Physician "too old", "sick" or deceased	13 (12)
Did not "like" physician	9 (9)

Table 3: Number and cumulative proportion of patients prescribed one or more medications

No. of medications	No. (and %) of patients	Cumulative %
≥ 7	17 (16)	16
4–6	44 (42)	58
1–3	36 (34)	92
0	8 (7)	100

Table 4: Number and cumulative proportion of patients with one or more risk factors for admission to a long-term care institution[18]

No. of risk factors	No. (and %) of patients	Cumulative %
5	2 (2)	2
4	18 (17)	19
3	30 (29)	48
2	45 (43)	90
1	8 (8)	98
0	2 (2)	100

family were interviewed; four patients refused an interview or were lost to follow-up.

Although the mortality rate for the year was 14%, 24 (69%) of the patients were still at home, and only 1 (3%) was in a long-term care institution (Table 5). Most (83%) of the patients were satisfied with the medical services received, and 79% felt secure that their health needs were being met. Of those still at home 96% could properly identify their assigned physician. One-third of the patients or their families felt it was not easy to reach their physician when the need arose; in half of these cases the physician did not return the call, and in the other half the patient (or family) felt that the delay before the physician responded had been too long.

The patients were asked what they would have done if a medical need arose and no visiting physician had been assigned. Nine (26%) did not know, and seven (20%) said that they would have called an ambulance. Although all the patients were initially judged to be housebound 6 of the 35 said that they would have gone to the physician's office. Perhaps under duress these otherwise housebound patients could have mobilized their own or their families' resources to get there. Alternatively, over the year of follow-up their condition may have improved sufficiently so that they were no longer completely housebound.

In addition to helping the housebound patients the volunteer physicians gained something from the program. Most expressed a sense of having provided a worthwhile service to a needy population. As well, through their exposure to the community home care services (nursing) and the social services network and through their contact with the supervising geriatrician[12] the physicians better understood how to care for elderly people at home.

Limitations

The main problem with the MSHCP was that the patients came to it primarily through referral. Although those who reached us through the CLSC might be considered to have been identified through an "outreach" program we had no way of knowing how many other patients in the area required our service. We were also concerned that the program would encourage a physician to "dump" a housebound patient in the assumption that the care would be provided by our program. Insofar as this occurred in an overt manner patient care was no doubt improved. We know of only one such case but have no idea how many patients were left to fend for themselves as a result of the initiation of our program.

Table 5: Status of 35 patients followed up after 1 year

Status	No. (and %) of patients
At home	24 (69)
Dead	5 (14)
In hospital for short-term care	1 (3)
In long-term care institution	1 (3)
Refused interview	4 (12)

A final limitation is the inability of even the best-organized community-hospital services to keep at home a heavily dependent patient who really requires institutional care. We were careful not to allow this. Nevertheless, a program such as ours may be exploited by some to perpetuate a situation (as exists in our area) in which improved community services as well as a dramatic increase in nursing home and long-term care beds are required.

Recommendations

- In some Canadian health jurisdictions pockets of chronically ill (usually elderly) patients with inadequate primary care may be identifiable through several sources.
- Occasionally family physicians (or specialists practising primary care) will refuse to care for their housebound patients. Such attitudes may change with appropriate education (especially during family and internal medicine residency training), clinical and hospital backup and increased reimbursement for house calls. Like their counterparts in family medicine specialists who choose to practise primary care must be prepared to follow patients at home. The professional regulatory bodies should set guidelines specifying the responsibility of physicians to follow (or refer appropriately) patients who become housebound.
- If a mechanism for initial patient assessment and stabilization is provided and consultative and hospital backup services are available busy family physicians will be more likely to care for these patients.
- A clinical coordinator, preferably with some training in geriatric medicine, should act as the liaison between the patients, the home care services, the consultants, the family physicians and the health care institutions. The coordinator should provide prereferral assessment, ensure clinical stabilization of the patients and provide backup to the assigned family physicians.

Although this model has worked well in our situation it cannot be transplanted in toto to another jurisdiction. Rather, the principles of case identification, full clinical assessment, careful matching of patients with family physicians, and physician recruitment and support should be applicable in any context.

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Old age

They judge it a great poynt of crueltie, that anye body in their moste nede of helpe and comforte, shoulde be caste of and forsaken, and that olde age, whych both bringeth sicknes with it, and is a syckenes it selfe, should unkindly and unfaythfullye be delte withall.

— Sir Thomas More (1478-1535)